

Public Health Action for the First Decade 2000-2010

June 2001

A Product of:



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Healthy Maryland PROJECT 2010 Health Improvement Plan is a publication of the Maryland Department of Health and Mental Hygiene Parris N. Glendening, Governor
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# MARYLAND'S HEALTH IMPROVEMENT PLAN



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## **F**OREWORD

This report, Maryland's first Health Improvement Plan (HIP), was developed to promote the public health agenda for Maryland as the 21<sup>st</sup> Century begins. It is a consensus document, formulated with input from health care consumers, providers, and other advocates in the public and private sectors around the state. A detailed list of contributors is provided in the Appendix.

Although this Plan includes a broad array of topics of public health concern, it is not an exhaustive list. Rather it examines and presents recommendations for a focused list of priorities, linked to the priority areas included in the national Healthy People 2010 report. A variety of quantitative and qualitative methods were used by focus groups convened to select the topics discussed in this Plan.

Priority subjects in 17 different focus areas are presented at the state level in this report. A similar array of priority subjects are presented from each of Maryland's 23 counties and Baltimore City with at least one topic from each jurisdiction. However, there are many additional areas of priority concern in these jurisdictions and statewide. The table on page 6 provides a summary listing of state and local priorities discussed in this HIP. Additionally, this table includes areas of priority concern which the local jurisdictions identified in their annual health plans, as well as others that were identified within the plan development process for the modules included in this Plan.

Data used to select these priority areas were primarily from 1997 to 1998. As new assessments are completed with updated facts and figures, these priorities may change. Consequently, every effort will be made to revise the HIP, at regular intervals, to reflect the changing needs of Maryland communities and its residents.

In addition to contributing one or more modules to this report, several local health departments have also published their own Health Improvement Plans or other strategic planning documents. These reports provide a more detailed discussion of local priorities and the process used to identify them.

3 FOREWORD

# Major Findings from Maryland's First Health Improvement Plan

As the 21st century opens, Maryland is home to slightly more than 5 million people. The over-whelming majority of these people are relatively young, less than 65 years of age. However, the elderly population, ages 65 years and over, continues to grow and was almost 12 percent of the total population in 1998. Maryland is home to a diverse ethnic population; African Americans, at almost 28 percent of the entire statewide population in 1998, constitute the major minority group. This proportion is decreasing as the number of other ethnic minorities continues to climb.

A variety of health status information exists to gauge the health of this population. We continue to assess health primarily with mortality, or death, data. An examination of available statistics indicates that the ten leading causes of death in 1998, at the end of the last century, were:

	Leading Causes of Death in Maryland, 1998
Rank:	Cause:
1	Heart Disease
2	Cancer
3	Cerebrovascular disease (stroke and related circulatory system conditions)
4	COPD (chronic obstructive pulmonary disease)
5	Pneumonia and Influenza
6	Diabetes
7	Unintentional Injury (with motor vehicle injuries accounting for almost half)
8	Septicemia (infection of the blood)
9	Homicide
10	HIV (human immunodeficiency virus)
Source: Ma	ryland Vital Statistics, 1998

Findings from extensive biomedical research during the past century indicate that the causes of many of the health problems that contribute to these deaths can be prevented and/or greatly controlled. Healthy People 2010 is based on this premise and Maryland's Project 2010 joins the national effort. To assist in charting a focused preventive health course, a variety of mortality and morbidity data, other health status information, and information on health care resources, including the public health workforce, were examined to identify areas for priority attention for Maryland's first Health Improvement Plan. At the state level, 17 areas were selected for priority attention. At the local level, a wide variety of health problems within these 17 areas and also in other areas, were selected for priority attention.

A summary of state and local priorities is provided in the table on the next page. An analysis of the overlapping areas yields the ranking among the priorities as detailed below:

Top Ten Focus Areas Addressed or Listed as Priorities in the Maryland Health Improvement Plan for 2010:									
Priority Rank	Focus Areas								
1 2 3 4 5 6 7	Child & Adolescent Health Substance Abuse Cancer Access to Health Care Maternal & Infant Health and Injury and Violence (tied for fifth) Tobacco Immunization and Infectious Disease and Mental Health (tied for seventh)								
8 9 10	Heart Disease, HIV, and Stroke and Sexually Transmitted Diseases (tied for eighth) Public Health Infrastructure Oral Health, Environmental Health, and Family Planning (tied for tenth)								

Although this list provides some insight into the leading areas of concern among those striving to improve the health of Marylanders and the communities in which they live, it only provides a qualified view. First, the list is a summary. A list of priorities for any one of the 24 local jurisdictions may vary greatly. Second, within the listed priorities, there are a wide variety of problems that require attention in order to improve specific problems at the state and/or local levels. Available resources and political will also impact efforts and outcomes. Finally, it is important to note that health status is not static; for any specific measure, there are ongoing changes as the health status improves or problems worsen. Continual monitoring and periodic re-examinations are essential in order to chart a timely and appropriate course to improve and promote Maryland's health.

## STATEWIDE AND LOCAL PRIORITY AREAS - 2000

County	Access to	Cancer	Cardiovas & Stroke	Child & A Health	Chronic D	Environm	Family PI	ΛH	Immuniza Infectious	Injury & V Preventio	Maternal Health	Mental He	Oral Heal	Public He Infrastruc	Sexually Diseases	Substanc	Торассо	Other	Totals
Allegany	~	*	*	*	*		*	*	*		*	*	~	*	*	*	*	*	16
Anne Arundel	~	*		*	*	*		*	*	*	*				*	*	*	*	13
Baltimore	~			*							*							*	4
Calvert	*			>		*	*			*		*				*	*	*	9
Caroline				>				*	*			*			*				5
Carroll	~	*	*		*	*				*		*	~			~		*	10
Cecil		>	~				*	*	*	*					*	*	*		9
Charles		*	*	*		*		*		*	~	*		*		*		*	11
Dorchester		*	*	*			*	*	*	*	*			*	*		~		11
Frederick	*	*		*								*	~	*		*		*	8
Garrett			*	*			*			*			~			*	*		7
Harford	*	*	*	*	*	*	*			*		*		>	*	~	*		13
Howard	*			<b>&gt;</b>	>	*								*				*	6
Kent				*				*	*					*	>				5
Montgomery	*	*		*	*			*		*	~		*			*		*	10
Prince George's	*						*	*	*		~	*		>	*	*			9
Queen Anne's		*		*												~		*	4
Somerset		*		*							*					*	~		5
St. Mary's	*	*	*						*	*	*		~						7
Talbot		*		*		*	*		*	~	*	*	*			*	*	*	12
Washington	*	*	*	*	*			*	~	*	*	*	*			*	*	*	14
Wicomico		*	*	*							~			*		~	*	*	7
Worcester	*	*		*					*	*	*	>		*	*	*	*	*	12
Baltimore City	~	*		*		*									*	*			6
Totals	14	17	10	20	7	8	8	10	11	13	13	11	8	9	10	18	12	14	213

Note:

#### Statewide Priorities:

Each of the seventeen focus areas listed in first row is addressed as a statewide priority in the HIP.

#### Local Priorities:

- An issue of priority concern within this focus area is the topic of a module included in the HIP for this jurisdiction.
- \* This focus area was identified as an additional area of priority concern during the HIP development process and/or overlaps with an area identified as a priority concern in this jurisdiction's FY00 Annual Plan for the Core Public Health Funding Program. "Other" includes topics that do not fit in one of the featured priority areas.

# **HEALTHY PEOPLE OVERVIEW**

### What is Healthy People?

Healthy People 2010 is the prevention agenda for the Nation. It is a statement of national health objectives designed to identify the most significant preventable threats to health and to establish national goals to reduce these threats. Healthy People 2010 offers a simple but powerful idea: provide the objectives in a format that enables diverse groups to combine their efforts and work as a team. It is a road map to better health for all and can be used by many different people, States, communities, professional organizations, and groups to improve health.



Healthy People 2010 builds on initiatives pursued over the past two decades. The 1979 Surgeon General's Report, Healthy People, and Healthy People 2000: National Health Promotion and Disease Prevention Objectives, each established national health objectives and served as the basis for the development of State and community plans. Like its predecessors, Healthy People 2010 was developed through a broad consultation process, built upon the best scientific information, and designed to measure programs over time.

## **Development of Healthy People 2010 Objectives**

The 28 focus areas of Healthy People 2010 have been developed by leading Federal agencies with the most relevant scientific expertise. The development process was informed by the Healthy People Consortium--an alliance of more than 350 national membership organizations and 250 State health, mental health, substance abuse, and environmental agencies. Additionally, through a series of regional and national meetings and an interactive Web site, more than 11,000 public comments on the draft objectives were received. Public comments were posted at <a href="https://www.health.gov/hpcomments">www.health.gov/hpcomments</a> for people to use in their own health improvement efforts. The Secretary's Council on National Health Promotion and Disease Prevention Objectives for 2010 also provided leadership and advice in the development of national health objectives.

## State and Community Health Objectives

Nearly all States, the District of Columbia, and Guam have developed their own Healthy People plans. Most States have built on the national objectives, but virtually all have tailored them to their specific needs. A 1993 National Association of County and City Health Officials survey showed that 70% of local health departments used at least some Healthy People 2000 objectives. Many States, working with community coalitions, are now developing their own versions of Healthy People 2010. The Healthy People 2010 Toolkit, which provides examples of State and national experiences in setting and using objectives, is available on the Web.

## **Using Healthy People Objectives**

Healthy People objectives have been specified by Congress as the measure for assessing the progress of the Indian Health Care Improvement Act, the Maternal and Child Health Block Grant, and the Preventive Health and Health Services Block Grant. Healthy People objectives also have been used in performance measurement activities. For example, the National Committee on Quality Assurance incorporated many Healthy People targets into its Health Plan Employer Data and Information Set (HEDIS) 3.0, a set of standardized measures for health care purchasers and consumers to use in assessing performance of managed care organizations in the areas of immunizations, mammography screening, and other clinical preventive services.

Individuals, groups, and organizations are encouraged to integrate Healthy People 2010 into current programs, special events, publications, and meetings. Businesses can use the framework, for example, to guide worksite health promotion activities as well as community-based initiatives. Schools, colleges, and civic and faith-based organizations can undertake activities to further the health of all members of their community. Health care providers can encourage their patients to pursue healthier lifestyles and to participate in community-based programs. By selecting from among the national objectives, individuals and organizations can build an agenda for community health improvement and can monitor results over time.

### **Healthy People 2010 Goals**

- 1. Increase quality and years of healthy life.
- 2. Eliminate health disparities.

## **Healthy People 2010 Focus Areas**

- Access to Quality Health Services
- Arthritis, Osteoporosis, and Chronic Back Conditions
- Cancer
- Chronic Kidney Disease
- Diabetes
- Disability and Secondary Conditions
- Educational and Community-Based Programs
- Environmental Health
- Family Planning
- Food Safety
- Health Communication
- Heart Disease and Stroke Prevention

- HIV
- Immunization and Infectious Diseases
- Injury and Violence Prevention
- Maternal, Infant, and Child Health
- Medical Product Safety
- Mental Health and Mental Disorders
- Nutrition and Overweight
- Occupational Safety and Health
- Oral Health
- Physical Activity and Fitness
- Public Health Infrastructure
- Respiratory Diseases
- Sexually Transmitted Diseases
- Substance Abuse
- Tobacco Use
- Vision and Hearing

The Office of Disease Prevention and Health Promotion (ODPHP), United States Department of Health and Human Services, is the Coordinator of the Healthy People 2010 Initiative.

### **Healthy People 2010**

http://www.health.gov/healthypeople

#### Office of Disease Prevention and Health Promotion http://odphp.osophs.dhhs.gov

Office of Disease Prevention and Health Promotion Room 738G, Hubert Humphrey Building 200 Independence Avenue, SW Washington, DC 20201 (202) 205-8583

# WHAT IS PUBLIC HEALTH?

#### A Public Health Primer

#### Public health is:

- What we, as a society, do collectively to assure the conditions in which people can be healthy.
- "Public," because it involves "organized community effort." It is not simply the outcome of isolated, individual effort. Its long-range goal, optimal health for the entire community, encompasses both the sum of the health status of individual community members and community wide benefits, such as clean air and water.
- The term "health" is perhaps best understood by reference to the well-known World Health Organization (WHO) definition. WHO defined health as "a state of complete well-being, physical, social, and mental, and not merely the absence of disease or infirmity." Thus, health is multi-dimensional and composed of, at a minimum, physical functioning, psychological well-being, social and role functioning, and health perceptions.



The nation's goal to increase the span of healthy life for Americans--put forward in Healthy People 2000 - includes not only prevention of premature death, disability, and disease, but also enhancement of the quality of life.

Historically, public health has made a difference in the quality of life for all Americans. Governmental actions to assure the health of the people--such as water quality control, immunizations, and food inspection--have prevented much illness and many deaths. These traditional accomplishments demonstrate the value of public health efforts, and exemplify the kind of success that is possible as a result of organized effort on the basis of technical knowledge.

#### Why should we be concerned about public health?

Present threats to the health of the people include urgent problems, such as the AIDS epidemic; enduring problems, such as injuries and chronic illness; and growing challenges, such as the aging of our population and the toxic by-products of a modern economy, transmitted through air, water, soil, or food. However, attention focused on specific health problems can lead to episodic actions, not to the sustained efforts that are needed. The necessary public health capacity to cope with the immediate, enduring, and impending threats to health cannot be turned on and off as particular health problems arise and receive attention. This necessary capacity -competent people, effective leadership, a scientifically sound knowledge base, the tools to monitor health problems and measure progress, a productive organizational structure, adequate financial resources, and a legal foundation that supports effective action--must be nurtured and supported by the society that reaps the benefits.

# THE HEALTHY PEOPLE INITIATIVE IN MARYLAND

### **A Historical Perspective**

Maryland's involvement in the national Healthy People initiative dates back to the early 1990's. In May 1993, Maryland published *Healthy Maryland 2000 - Volume 1*. Oversight for development of the report was provided by a committee of preventive health experts from Maryland's state and local health departments. This first report:

- demonstrated Maryland's health status in comparison to national measures.
- included Maryland's status for 220 objectives. Maryland met or surpassed the national Healthy People targets for 49 of the 220 objectives.
- included Maryland rankings for the Consensus Set of Health Indicators, a subset of the national objectives used as a marker for health status.

In September 1996, a second report, *Healthy Maryland - Volume 2*, was released. The content of this report was expanded to reflect the interests of a wider range of Maryland's public health officials as well as public and private sector partners. The second report included:

- Maryland-specific objectives that highlighted statewide and local preventive health programs.
- State and, for the first time, local rankings for the Consensus Set of Health Indicators and 11 additional indicators.

On July 30, 1998, the Maryland Secretary of Health launched **Healthy Maryland Project 2010** as a top priority. The primary focus of Healthy Maryland Project 2010 is to unite Maryland stakeholders in a collaborative effort to protect and improve the health of all Maryland residents.

- In September 1998, a steering committee was established to facilitate broad communication and input for this statewide initiative.
- In May 1999, Healthy Maryland Project 2010 hosted a two-day summit to identify health improvement priorities for Maryland. Participants were assigned a Maryland region, and asked to review jurisdiction-specific data, select priority indicators, and develop health objectives.
- A summary of the Healthy Maryland Project 2010 Summit proceedings was published in a report released in October 1999.
- In October 1999, the Healthy Maryland Project 2010 Steering Committee reviewed and approved the proposed process for development of Maryland's first Health Improvement Plan (HIP).

# OVERVIEW OF MARYLAND'S POPULATION

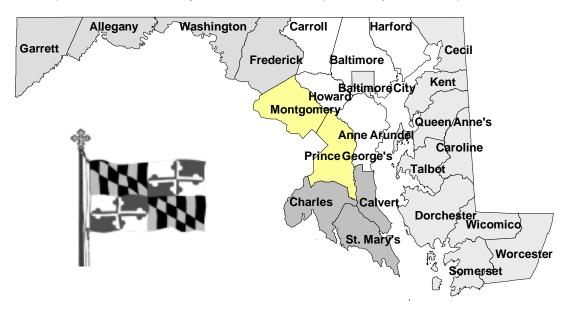
Maryland at a Glance*		
WANTEAND AT A CLANCE	Manuland	U.S.
Domographica12	Maryland	0.5.
Demographics <sup>1,2</sup>	E 40E	270 200
Total resident population (in 1,000), 1998	•	•
Under age 5 population (as % of total), 1998		
Age 65+ population (as % of total), 1998		
Non-white & Hispanic population (as % of total),1998	35.2	27.7
Health Status <sup>3,4,5,6,7</sup>		
Vaccine coverage for children 19-35 mos (% of), 1998	79	81
Smokers adult population (% of), 1998		
AIDS cases reported per 100,000 pop., 1998		
Infant Mortality (total), 1998		
Low birth weight babies (% of)		
White Rate	6.4	6.5
African-American Rate		
Health Care Coverage and Economic Status <sup>8,9,10,11,12,13</sup>		
Nonelderly insurance status (% of pop.) 1995-97 average		
Total private (% of)	76.9	70.7
Medicaid and other public (% of)		
Total enrollment in HMOs (as % of pop./insured pop), 1998		
Total uninsured (% of pop.) 1996-98 average		
Uninsured by race (%), (White/Minority), 1995-97 average		
Cost of employment-based family health coverage, 1998		
Total premium (average per employee)	\$5,070	\$4,953
Employee contribution (average per employee)		
Personal income per capita, 1998	\$30,023	\$26,482
Median family income, 1998		
Unemployment rate (% of civilian work force), 1998	4.6	4.5
Resources Available, <sup>9,14</sup>		
Primary Care Physicians** per 100,000 pop., 1997		
Physician Specialists** per 100,000 pop., 1997		
Registered Nurses per 100,000 pop., 1998		
Population underserved by Primary Care MDs (% of), 1997	2.2	9.6
Hatti-pation of Complex of 5		
Utilization of Services <sup>15</sup>		0.4
Average stay in community hospitals, 1997 (days)		
Outpatient visits (incl. ER) to all hospitals (per 1,000 pop.), 1997		
Emergency room visits to community hospitals (per 1,000 pop.) 1997	316.3	346.8

<sup>\*</sup> Adapted from: "State Health Care Expenditures, Experience from 1998," Maryland Health Care Commission, January, 2000, Baltimore, MD.

<sup>\*\*</sup> Count of nonfederal physicians (MDs or Osteopaths) in patient care: primary care is general or family practice, general internal medicine and general pediatrics; specialists are all other types of specialities, including OB/GYN.



aryland is a diverse and varied State, both geographically and economically. Though small in size (only 9,843.62 sq. miles), with a 1999 population estimate of 5,171,634, the State ranked 19<sup>th</sup> in population, and 6<sup>th</sup> nationally in population density. Its geographic diversity is showcased by the Appalachian Mountains to the west and the Chesapeake Bay and Atlantic Ocean to the east. Frederick County has the largest land area (662.72 square miles), and Baltimore City has the smallest (80.34 square miles).

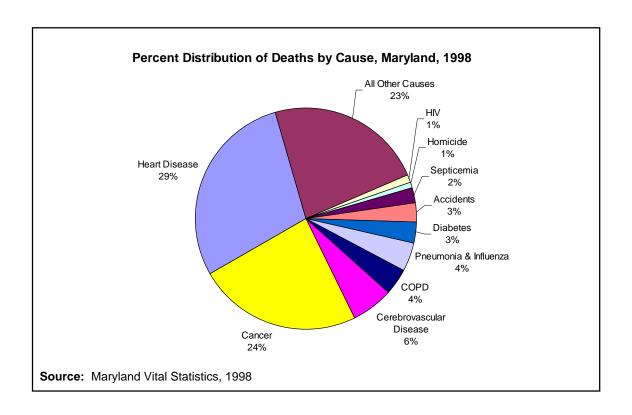


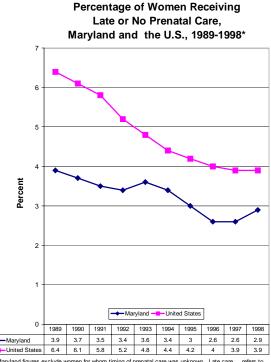
Maryland has much to be proud of, and, as any state, also has areas which need improvement. As a state, Maryland ranks first in the nation in the percentage of professional and technical workers in the workforce. Our State ranks first in the rate of high school completions (95%, compared to 86% for the nation), and second among the 50 states in the percentage of the population (31.8%) age 25 years and older who have completed a bachelor's degree or more. Maryland's median household income of \$50,016 is the second highest in the nation, placing the State 29% above the national average. Maryland residents experience the lowest poverty rate in the nation, with 7.2% of the population living below the poverty level, compared to 12.7% for the United States as a whole. The Children's Rights Council, a national child advocacy organization, recently ranked Maryland as the seventh best state in the United States in which to raise a child. In the Mid Atlantic States, Maryland ranks first.

As impressive as this information is, certain segments of Maryland's population do not demonstrate the same progress as their national counterparts. The health status of some Marylanders has shown declining health, indicating an increased need for intervention. Areas which need increased attention include care for infants and children, heart disease, and influenza and pneumonia vaccinations. Both the percentage of births to women receiving late or no prenatal care and neonatal death rates were slightly higher in 1998 than in 1997.

Heart disease remains the leading cause of death, even though the age-adjusted mortality rate for heart disease has declined by 26% over the last 100 years. The combined death rate from pneumonia and influenza are still important, and actually rose from 1997 to 1998. Diabetes and HIV are also leading causes of death in Maryland.

#### The following graphics provide a picture of Maryland's overall health status:

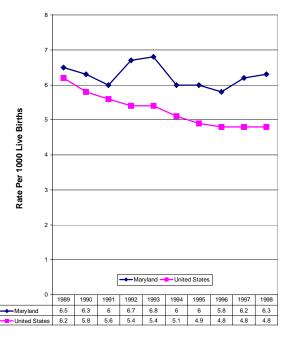




\* Maryland figures exclude women for whom timing of prenatal care was unknown. Late care refers to prenatal care which begins during the third trimester of pregnancy.

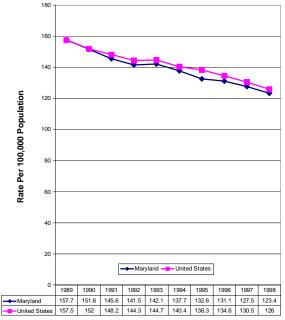
Source: Maryland Vital Statistics, 1998

Neonatal Mortality Rate, Maryland and the United States, 1989-1998



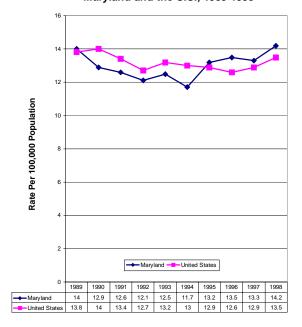
Source: Maryland Vital Statistics, 1998

Age-Adjusted Death Rate for Diseases of the Heart, Maryland and the U.S., 1989-1998



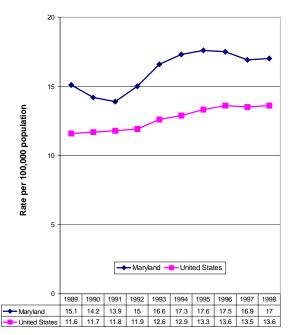
Source: Maryland Vital Statistics, 1998

Age-Adjusted Death Rate for Pneumonia and Influenza, Maryland and the U.S., 1989-1998



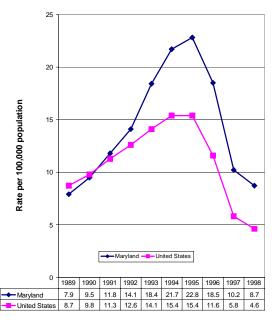
Source: Maryland Vital Statistics, 1998

Age-Adjusted Death Rate for Diabetes, Maryland and the U.S., 1989-1998



Source: Maryland Vital Statistics, 1998

Age-Adjusted Death Rate for Human Immunodeficiency Virus, Maryland and the U.S., 1989-1998



Source: Maryland Vital Statistics, 1998

#### **Data Sources**

- From "Population Estimates for the U.S., Regions, and State by Selected Age Groups and Sex: Annual Time Series, July 1, 1990 to July 1, 1998 (includes revised April 1, 1990 census population counts)," U.S. Department of Commerce, U.S. Census Bureau, Population Division, Population Distribution Branch, *U.S. Census Bureau Web Site*. Website: http://www.census.gov/population/estimates/state/st-99-09.txt. Accurate as of July 15,1999. Regional estimates derived from: "1998 Population for Maryland Jurisdictions," September, 1999, Maryland Office of Planning. Website: http://www.op.state.md.us./MSDC.
- <sup>2</sup> "Population Estimates for States by Race and Hispanic Origin: July 1, 1998." U.S. Department of Commerce, Census Bureau, Population Division, Population Distribution Branch. Website: http://www.census.gov/population/estimates/state/srh/srh98.txt. Accurate as of September 15, 1999.
- <sup>3</sup> "Births and Deaths: Preliminary Data for 1998." By J. A. Martin, B. L. Smith, T. J. Mathews, and S. J. Ventura, 1999, *National Vital Statistics Reports*, *47* (25), Hyattsville, MD: National Center for Health Statistics. NOTE: Rates reported in Table are not age-adjusted.
- <sup>4</sup> Maryland Vital Statistics 1998 Preliminary Report," Maryland Department of Health and Mental Hygiene, Division of Health Statistics, 1998, Baltimore, MD, 1998. NOTE: Rates reported in Table 1 are not age-adjusted.
- 5 "Table 2a. Estimated Vaccination Coverage with Individual Vaccines among Children 19-35 Months of Age by Census Division and State--United States," from the National Immunization Survey, 1998, Centers for Disease Control and Prevention, National Center for Health Statistics, National Immunization Survey. Website: http://www.cdc.gov/nip/coverage.
- 6 1998 Behavioral Risk Factor Surveillance Summary Prevalence Report, Centers for Disease Control and Prevention, June 18, 1999. Atlanta, GA: Centers for Disease Control and Prevention. NOTE: U.S. estimate includes Puerto Rico.
- Table 2: rate reported for U.S. includes the 50 states and the District of Columbia, but excludes U.S. dependencies, possessions, and associated nations," Centers for Disease Control and Prevention, 1998, HIV/AIDS Surveillance Report, 10 (2), 8. Regional estimates derived from: "AIDS Cases by Maryland County Diagnosed in 1998 and Reported through March, 1999," Maryland Department of Health and Mental Hygiene, AIDS Administration, 1999. Baltimore, MD.
- <sup>8</sup> "Current Population Reports, Series P620-208," by J.A. Campbell and the U.S. Bureau of the Census, 1999, *Health Insurance Coverage: 1998.* Washington, DC: U.S. Government Printing Office.
- <sup>9</sup> Reforming the Health Care System: State Profiles 1999, by J. Lamphere, N. Brangan, S. Bee, and K. Griffin, 1999, Washington, DC: Public Policy Institute/American Association of Retired Persons.
- Maryland Health Care Commission (MHCC) calculations based on (1) population estimates from citation no. 1; (2) percent insured from citation 9; (3) national number enrolled in HMOs from *The InterStudy Competitive Edge*, 9 (2); Part II: HMO Industry Report; Minneapolis, MN; and (4) Maryland residents enrolled in HMOs estimated by MHCC from Maryland Insurance Administration annual filings adjusted to include residents in HMO contracts located outside of Maryland.
- National: "Unemployment Rate -- Civilian Labor Force, Age 16 Years and Older, Seasonally Adjusted," U.S. Department of Labor, Bureau of Labor Statistics. Labor Force Statistics from the Current Population Survey. Web site: http://www.bls.gov/cpshome.htm. NOTE: Monthly statistics were averaged to produce yearly figure. State: "Maryland Civilian Labor Force, Employment and Unemployment by Place of Residence -- 1978-1998" Maryland Department of Labor, Licensing, and Regulation. Website: http://www.dllr.state.md.us/lmi/78.htm. Counties: "Regional Data --1990 to 1998 Annual Averages, Civilian Labor Force, Employment and Unemployment by Place of Residence," Maryland Department of Labor, Licensing, and Regulation. Website: http://www.dllr.state.md.us/lmi/9097avg.htm.

- National and state: "Regional Accounts Data, State Personal Income," U.S. Department of Commerce, Economic and Statistics Administration, Bureau of Economic Analysis. Website: http://www.bea.doc.gov/bea/regional/spi/. Counties: Maryland Office of Planning, Research and State Data Center, Bureau of Economic Analysis.
- U.S. Agency for Health Care Policy and Research, Center for Cost and Financing Studies, 1996. MEPS IC-001: 1996 Employer-Sponsored Health Insurance Data. Total premium: "Table 2U, 1996 Medical Expenditure Panel Survey, Insurance Component." Refers to the average family premium paid by private sector establishments that offer health insurance for family coverage per enrolled employee. Excludes temporary and contract workers. If more than one family rate was offered, the cost for a family of four was collected. Employee contribution: "Table 2V: 1996 Medical Expenditure Panel Survey, Insurance Component." Refers to the average contribution by an enrolled employee, excluding temporary or contract workers, for family coverage at private-sector establishments that offer health insurance. If more than one family rate was offered, the cost for a family of four was collected.
- Maryland Health Care Commission calculations based on: (1) American Medical Association Physician Masterfiles; (2) American Osteopathic Association data; and (3) Bureau of the Census State and County Population Estimates; all contained in U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions' Area Resource File: February 1999 Release.
- Health Care State Rankings, (7th ed.), by K. Morgan, S. Morgan, N. Quitno (Eds.), 1999, Lawrence, KS: Morgan Quitno Press. NOTE: Primary care physicians, p.437; Physician specialists, p.445; Physician assistants, p.481; Occupancy rate in community hospitals, p. 212; Average stay in community hospitals, p.211; Admission to community hospitals, p. 208; Outpatient visits to community hospitals, p. 213; Emergency outpatient visits to community hospitals, p. 214; Surgical operations in community hospitals, p. 7. Population estimates derived from U.S. Department of Commerce, Census Bureau. "Total Resident Population on July 1, 1997." Website: http://www.census.gov/population/www/estimates/statepop.html. Accurate as of October, 1998.